FIG. 1A

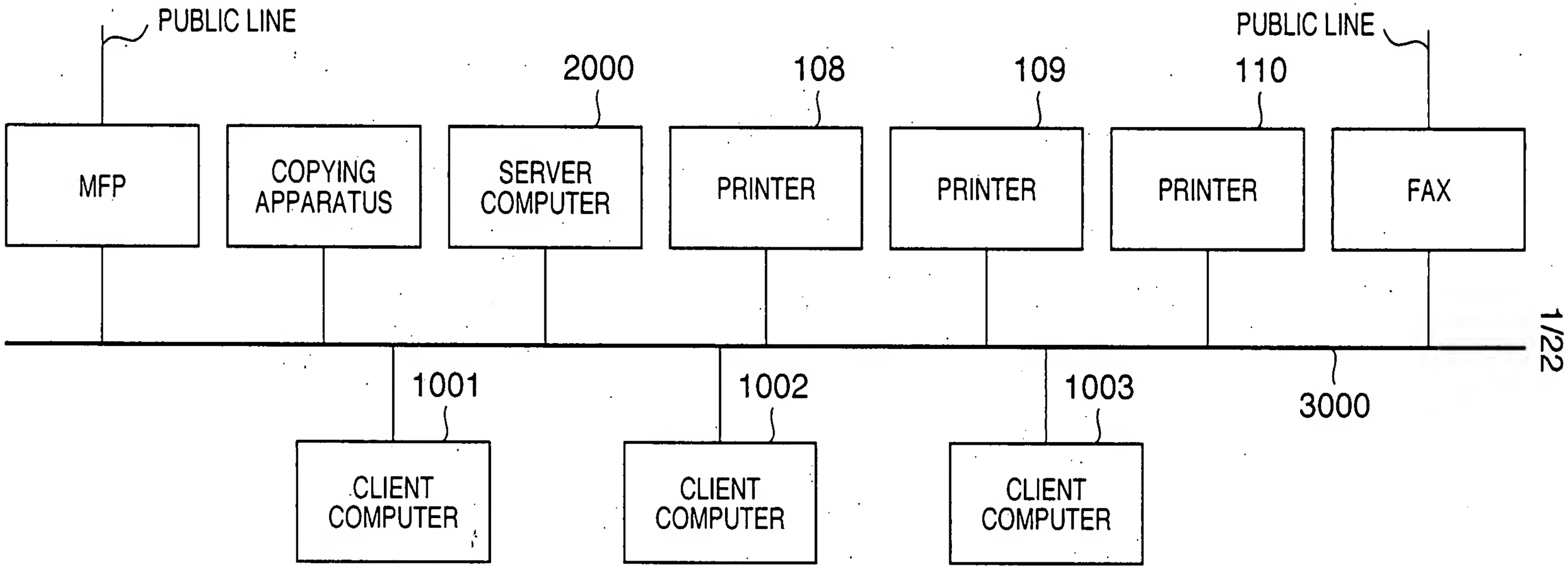

PUBLIC LINE
PUBLIC LINE
2000
108
109
110
MFP
COPYING APPARATUS
SERVER COMPUTER
PRINTER
PRINTER
PRINTER
FAX
1001
1002
1003
3000
CLIENT COMPUTER
CLIENT COMPUTER
CLIENT COMPUTER

FIG. 1B

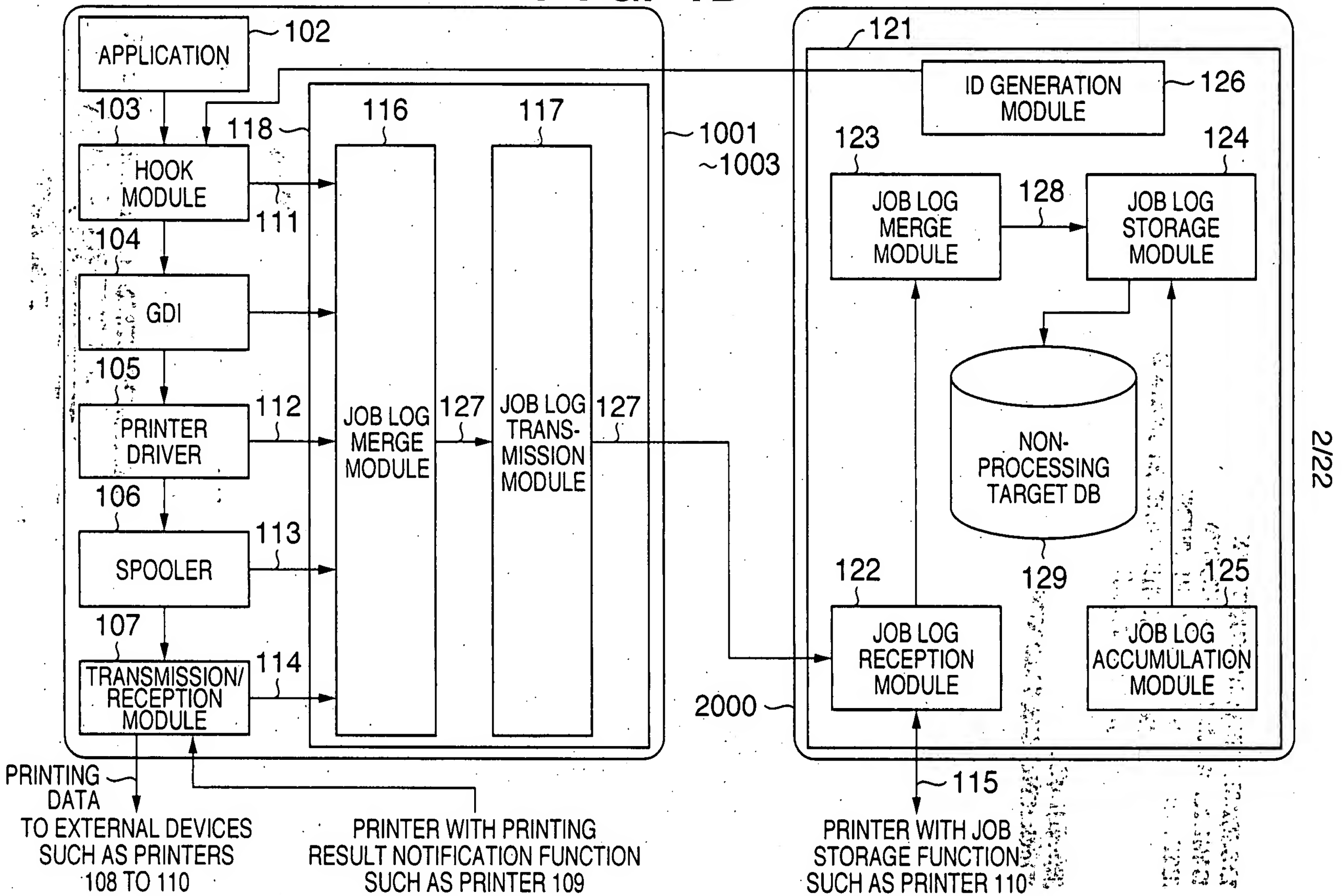

APPLICATION
102
103
HOOK MODULE
104
GDI
105
PRINTER DRIVER
106
SPOOLER
107
TRANSMISSION/ RECEPTION MODULE
118
116
117
1001
1003
111
112
113
114
JOB LOG MERGE MODULE
127
JOB LOG TRANS-MISSION MODULE
127
121
ID GENERATION MODULE
126
123
124
JOB LOG MERGE MODULE
128
JOB LOG STORAGE MODULE
NON-PROCESSING TARGET DB
129
122
125
JOB LOG RECEPTION MODULE
JOB LOG ACCUMULATION MODULE
2000
115
PRINTING DATA
TO EXTERNAL DEVICES SUCH AS PRINTERS 108 TO 110
PRINTER WITH PRINTING RESULT NOTIFICATION FUNCTION SUCH AS PRINTER 109
PRINTER WITH JOB STORAGE FUNCTION SUCH AS PRINTER 110

FIG. 2

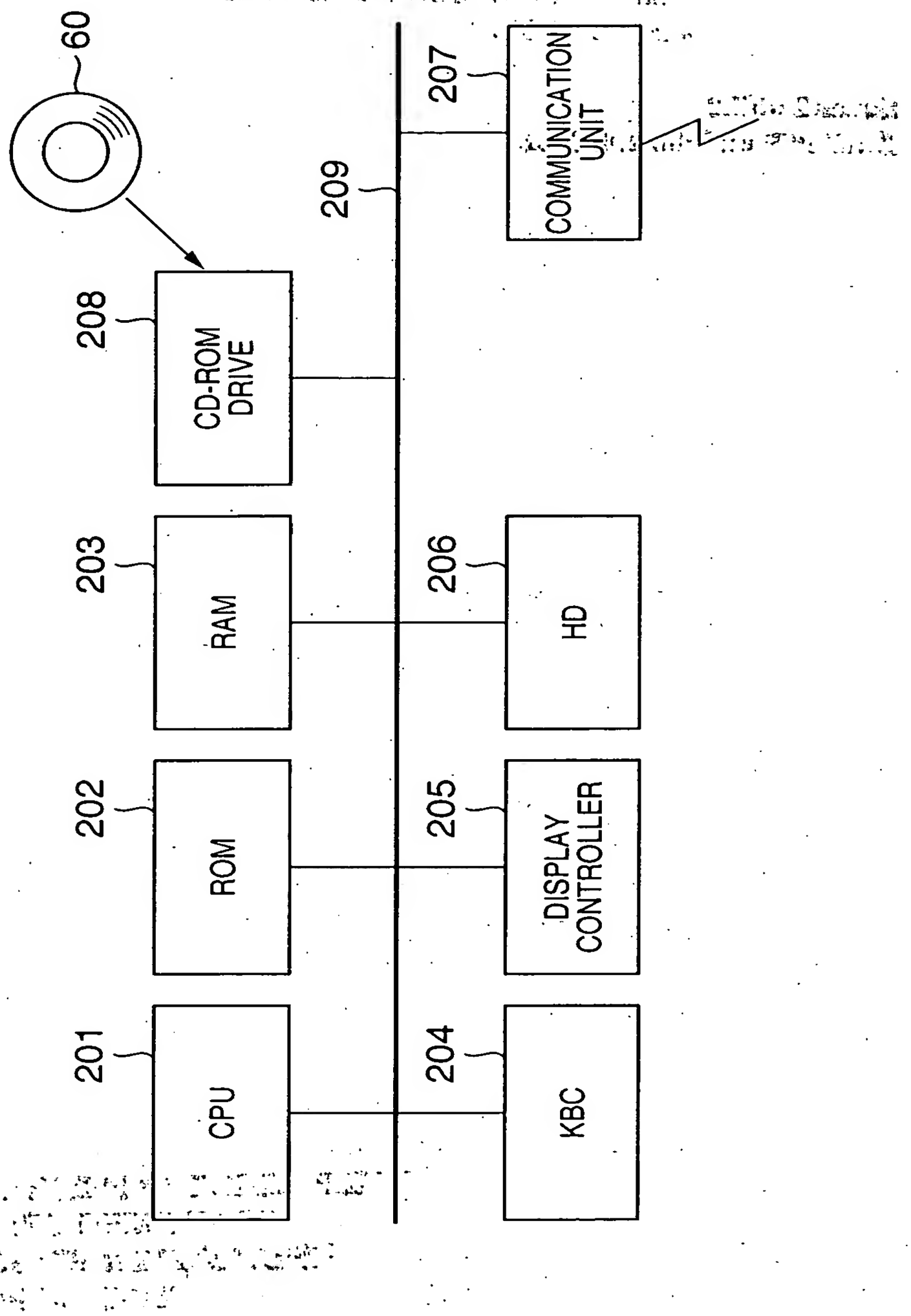

60
207
COMMUNICATION UNIT
209
208
CD-ROM DRIVE
203
RAM
206
HD
202
ROM
205
DISPLAY CONTROLLER
201
CPU
204
KBC

FIG. 3

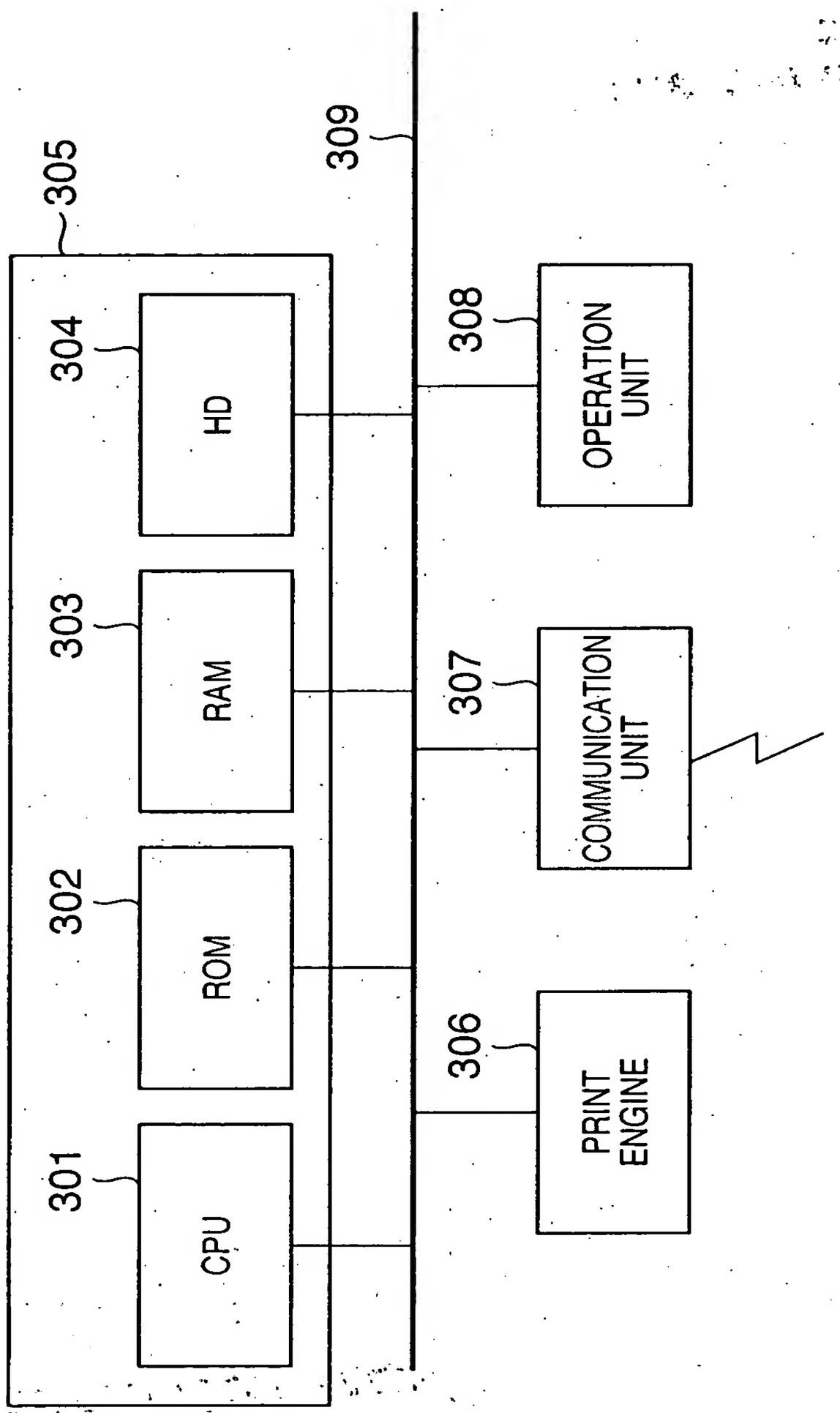

305
309
301
CPU
302
ROM
303
RAM
304
HD
306
PRINT ENGINE
307
COMMUNICATION UNIT
308
OPERATION UNIT

FIG. 4

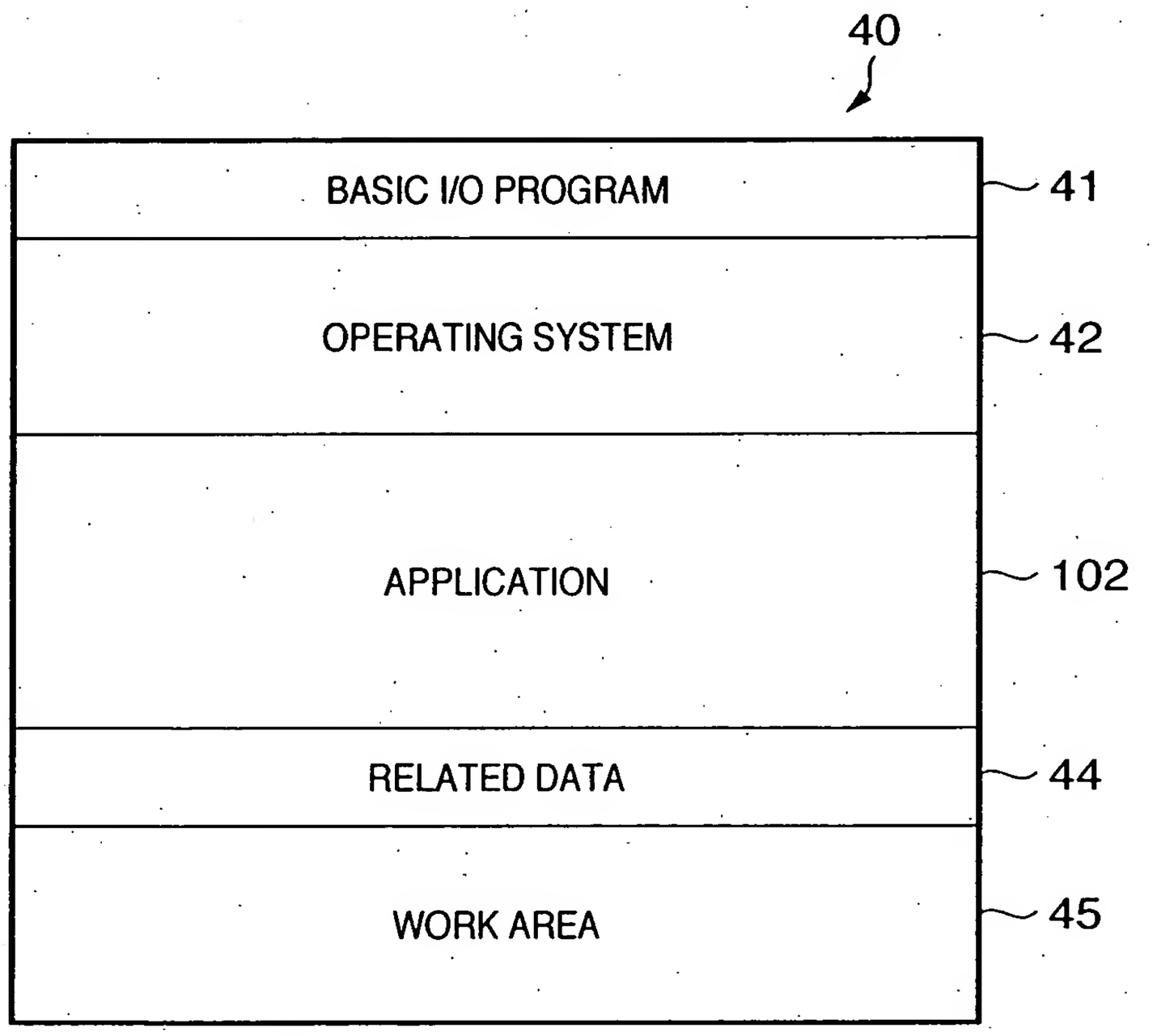

40
BASIC I/O PROGRAM
41
OPERATING SYSTEM
42
APPLICATION
102
RELATED DATA
44
WORK AREA
45

FIG. 5

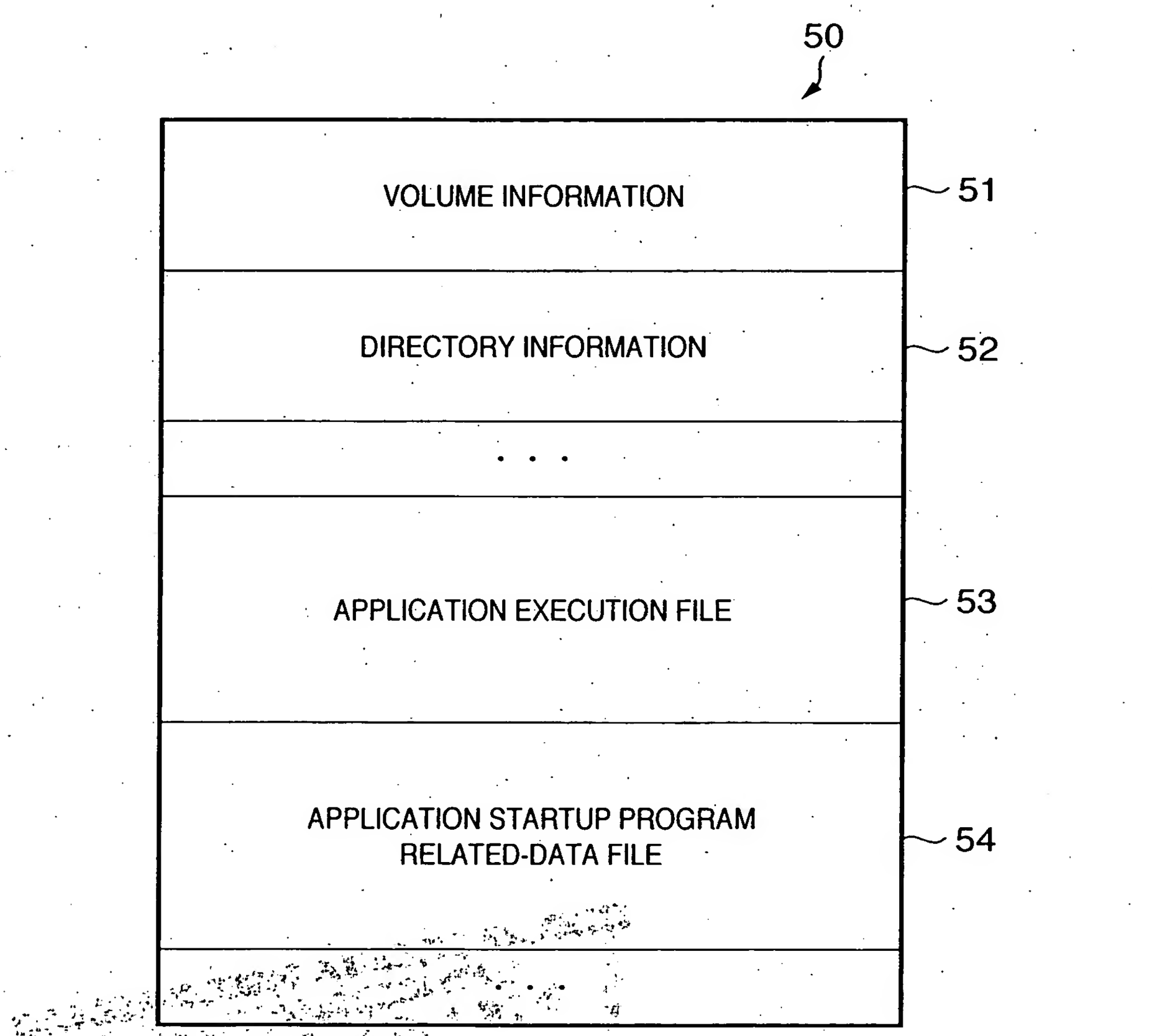

50
VOLUME INFORMATION
51
DIRECTORY INFORMATION
52
APPLICATION EXECUTION FILE
53
APPLICATION STARTUP PROGRAM
RELATED-DATA FILE
54

FIG. 6

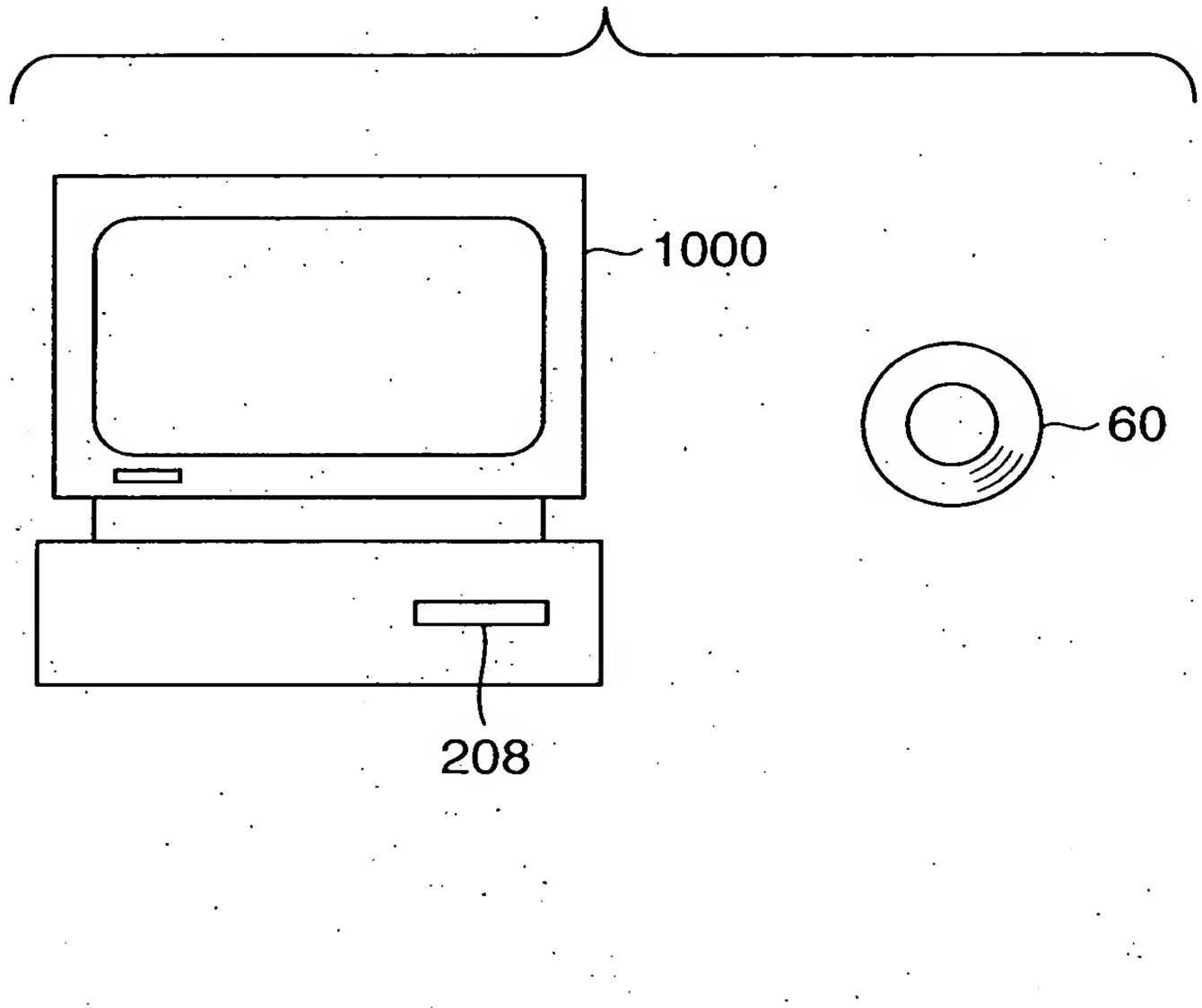


FIG. 7

JobID	520
APPLICATION NAME	Word MASTER
NUMBER OF LOGICAL PAGES	9
DOCUMENT NAME	abcd0001
ORIGINAL DOCUMENT NAME	2001 ANNUAL REPORT
PROCESSED	NO
TYPE	HOOK
START TIME	2001/12/20 21:11
END TIME	2001/12/20 21:21

FIG. 8

JobID	520
PAPER SIZE	A4
N-up	4
NUMBER OF BULL-VALUE PAGES	3
DOUBLE-/SINGLE-SIDED PRINTING	TWO SIDES
PROCESSED	NO
TYPE	DRIVER
PORT NAME	IP_10.166.30.2
PRINTER DRIVER NAME	Acrobad writer 3.0
START TIME	2001/12/20 21:21
END TIME	2001/12/20 21:31

FIG. 9

JobID	520
OWNER NAME	YAMADA
SPOOL DATA SIZE	56789
NUMBER OF PHYSICAL PAGES	3
DOUBLE-/SINGLE-SIDED PRINTING	TWO SIDES
PROCESSED	NO
TYPE	API
START TIME	2001/12/20 21:31
END TIME	2001/12/20 21:41

FIG. 10

JobID	520
PROCESSED	NO
TYPE	MONITOR
START TIME	2001/12/20 21:41
END TIME	2001/12/20 21:51

FIG. 11

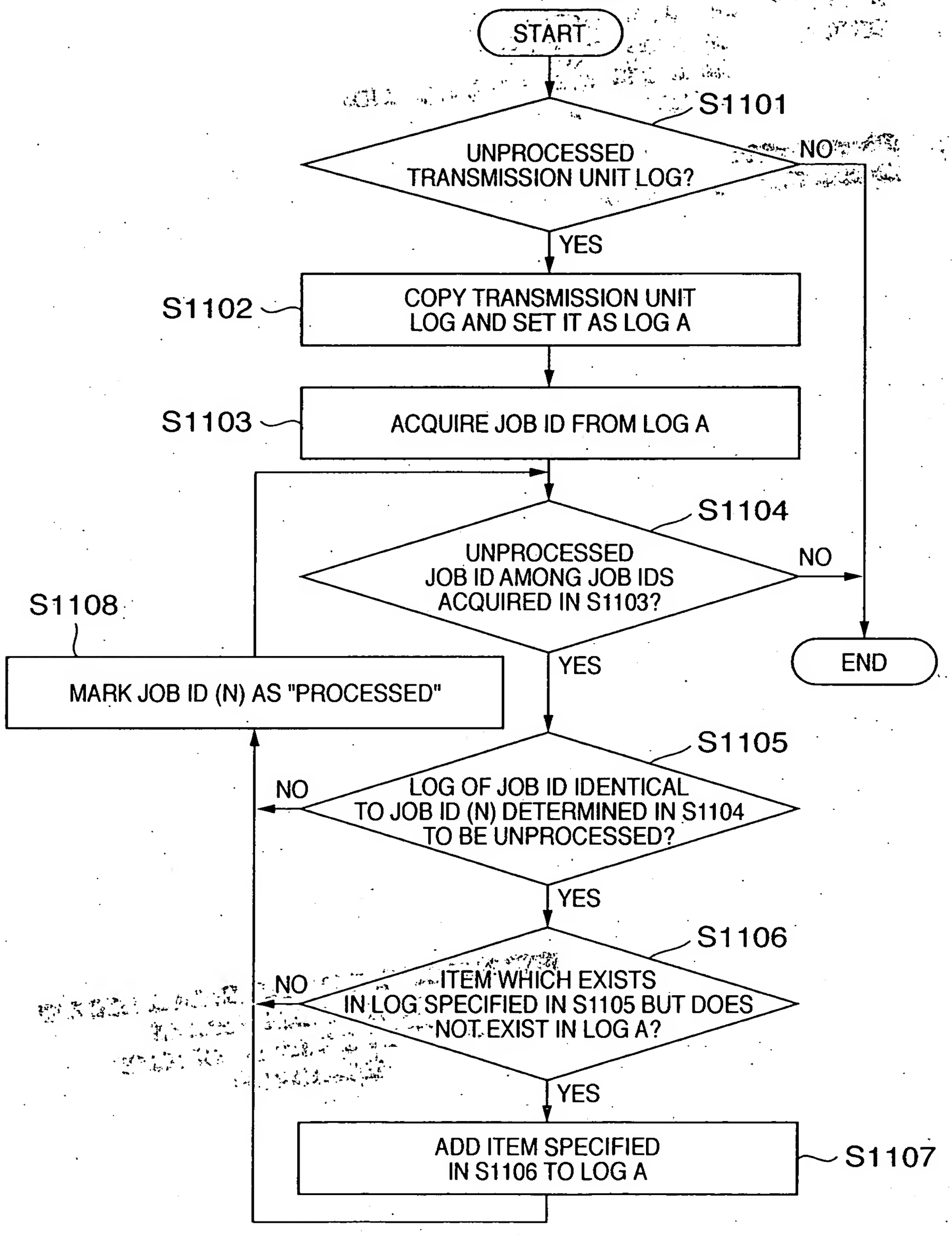

START
S1101
UNPROCESSED TRANSMISSION UNIT LOG?
NO
YES
S1102
COPY TRANSMISSION UNIT LOG AND SET IT AS LOG A
S1103
ACQUIRE JOB ID FROM LOG A
S1104
UNPROCESSED JOB ID AMONG JOB IDS ACQUIRED IN S1103?
NO
YES
END
S1108
MARK JOB ID (N) AS "PROCESSED"
S1105
NO
LOG OF JOB ID IDENTICAL TO JOB ID (N) DETERMINED IN S1104 TO BE UNPROCESSED?
YES
S1106
NO
ITEM WHICH EXISTS IN LOG SPECIFIED IN S1105 BUT DOES NOT EXIST IN LOG A?
YES
ADD ITEM SPECIFIED IN S1106 TO LOG A
S1107

FIG. 12

JobID	520
APPLICATION NAME	Word MASTER
NUMBER OF LOGICAL PAGES	9
DOCUMENT NAME	abcd0001
ORIGINAL DOCUMENT NAME	2001 ANNUAL REPORT
PROCESSED	NO
TYPE	MERGE
START TIME	2001/12/20 21:11
END TIME	2001/12/20 21:21
PAPER SIZE	A4
N-up	4
NUMBER OF PHYSICAL PAGES	3
DOUBLE-/SINGLE-SIDED PRINTING	TWO SIDES
OWNER NAME	YAMADA
SPOOL DATA SIZE	56789
PORT NAME	IP_10.166.30.2
PRINTER DRIVER NAME	Acrobad writer 3.0

FIG. 13

JobID	520
NUMBER OF DELIVERY PAGES	3
NUMBER OF DELIVERY SHEETS	2
PROCESSED	NO
TYPE	PRINTER
START TIME	2001/12/20 22:01
END TIME	2001/12/20 22:11
DOCUMENT NAME	abcd0001

FIG. 14

JobID	520
NUMBER OF DELIVERY PAGES	3
NUMBER OF DELIVERY SHEETS	2
PROCESSED	NO
TYPE	PRINTER
START TIME	2001/12/20 22:01
END TIME	2001/12/20 22:11
DOCUMENT NAME	2001 ANNUAL

FIG. 15

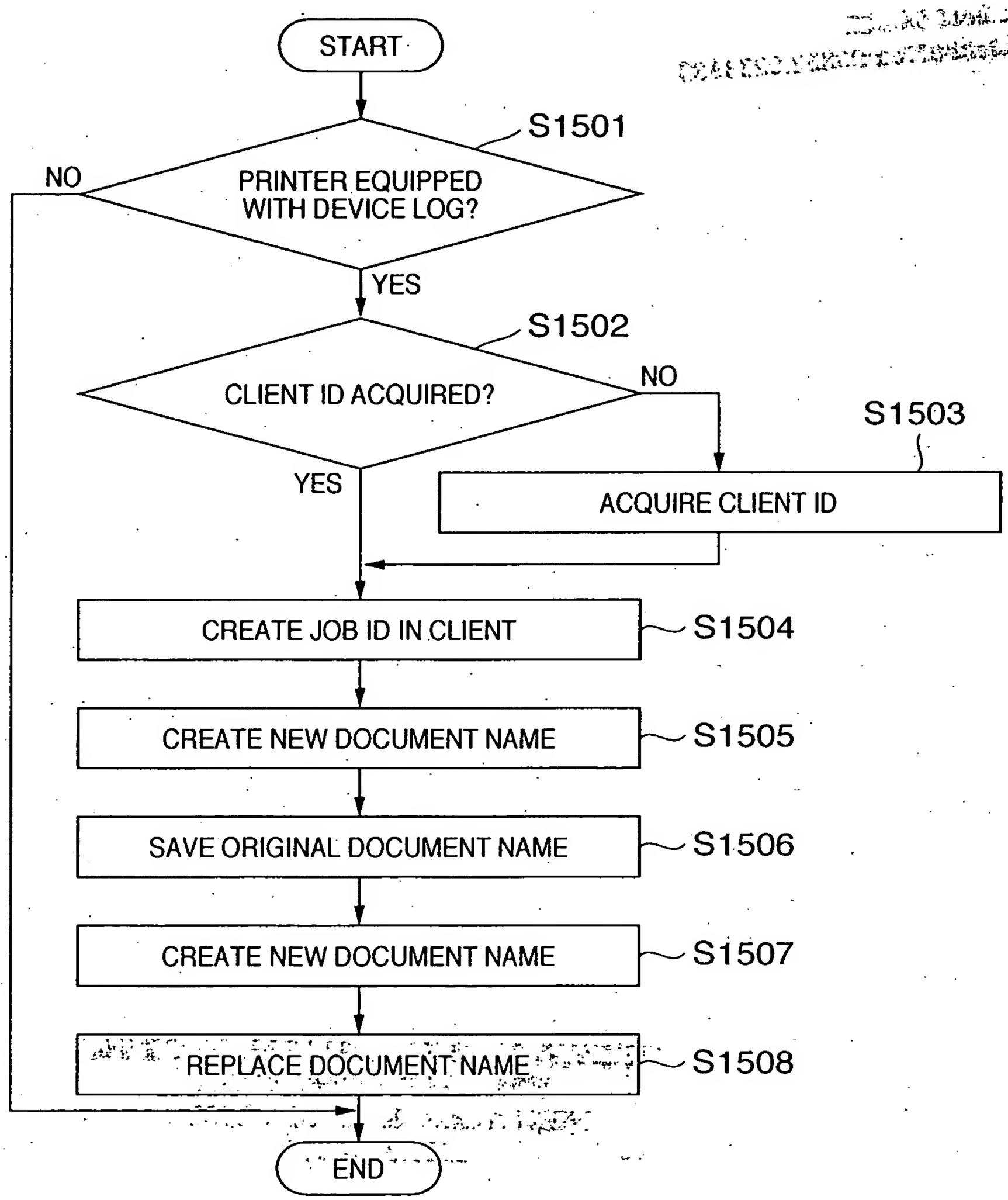

START
S1501
PRINTER EQUIPPED WITH DEVICE LOG?
NO
YES
S1502
CLIENT ID ACQUIRED?
NO
YES
S1503
ACQUIRE CLIENT ID
CREATE JOB ID IN CLIENT
S1504
CREATE NEW DOCUMENT NAME
S1505
SAVE ORIGINAL DOCUMENT NAME
S1506
CREATE NEW DOCUMENT NAME
S1507
REPLACE DOCUMENT NAME
S1508
END

FIG. 16

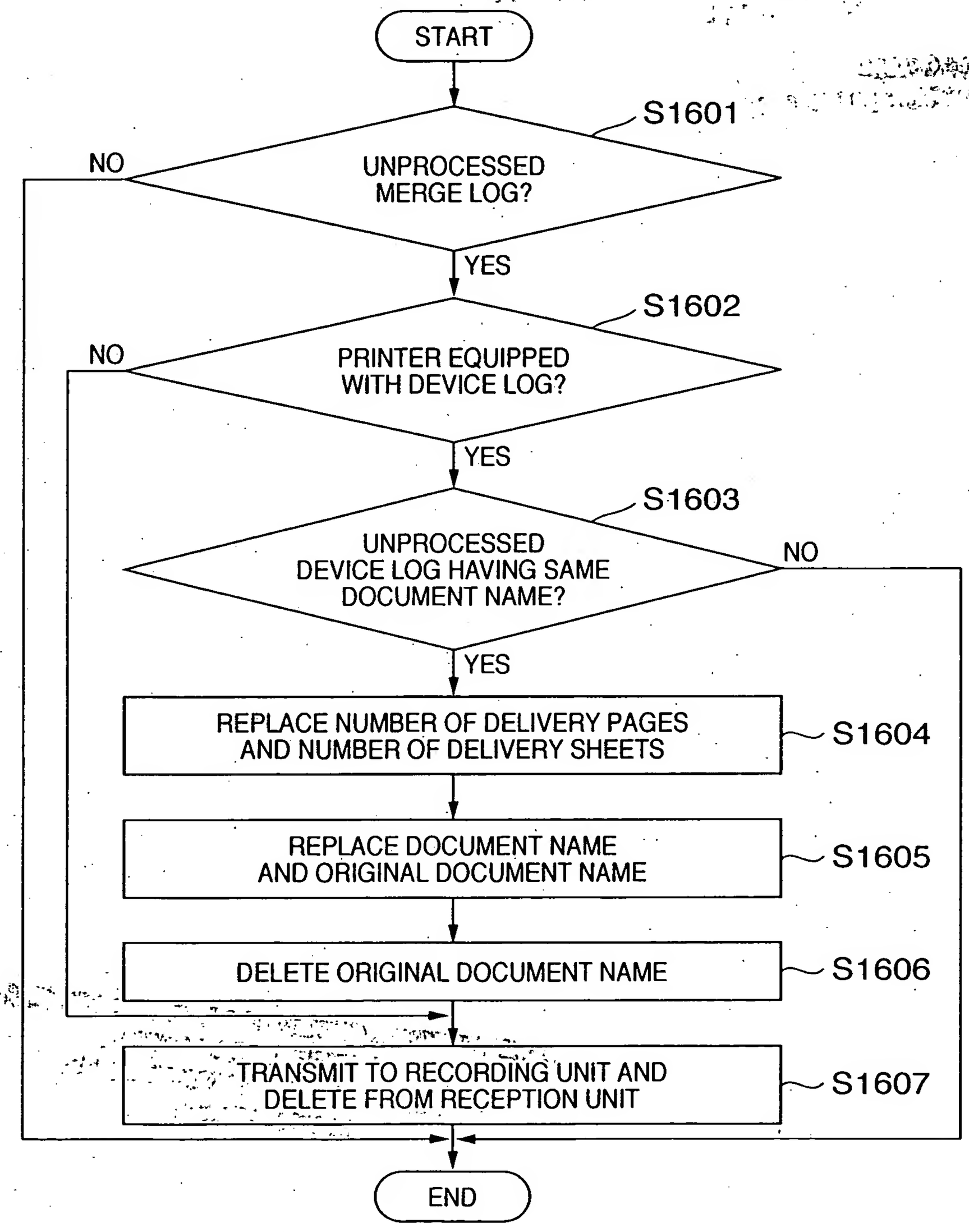

START
S1601
UNPROCESSED MERGE LOG?
NO
YES
S1602
PRINTER EQUIPPED WITH DEVICE LOG?
NO
YES
S1603
UNPROCESSED DEVICE LOG HAVING SAME DOCUMENT NAME?
NO
YES
REPLACE NUMBER OF DELIVERY PAGES AND NUMBER OF DELIVERY SHEETS
S1604
REPLACE DOCUMENT NAME AND ORIGINAL DOCUMENT NAME
S1605
DELETE ORIGINAL DOCUMENT NAME
S1606
TRANSMIT TO RECORDING UNIT AND DELETE FROM RECEPTION UNIT
S1607
END

FIG. 17

JobID	520
APPLICATION NAME	Word MASTER
NUMBER OF LOGICAL PAGES	9
DOCUMENT NAME	abcd0001
PROCESSED	NO
TYPE	MERGE
START TIME	2001/12/20 21:11
END TIME	2001/12/20 21:21
PAPER SIZE	A4
N-up	4
NUMBER OF PHYSICAL PAGES	3
DOUBLE-/SINGLE-SIDED PRINTING	TWO SIDES
OWNER NAME	YAMADA
SPOOL DATA SIZE	56789
PORT NAME	IP_10.166.30.2
PRINTER DRIVER NAME	Acrobad writer 3.0
NUMBER OF DELIVERY PAGES	3
NUMBER OF DELIVERY SHEETS	2

FIG. 18

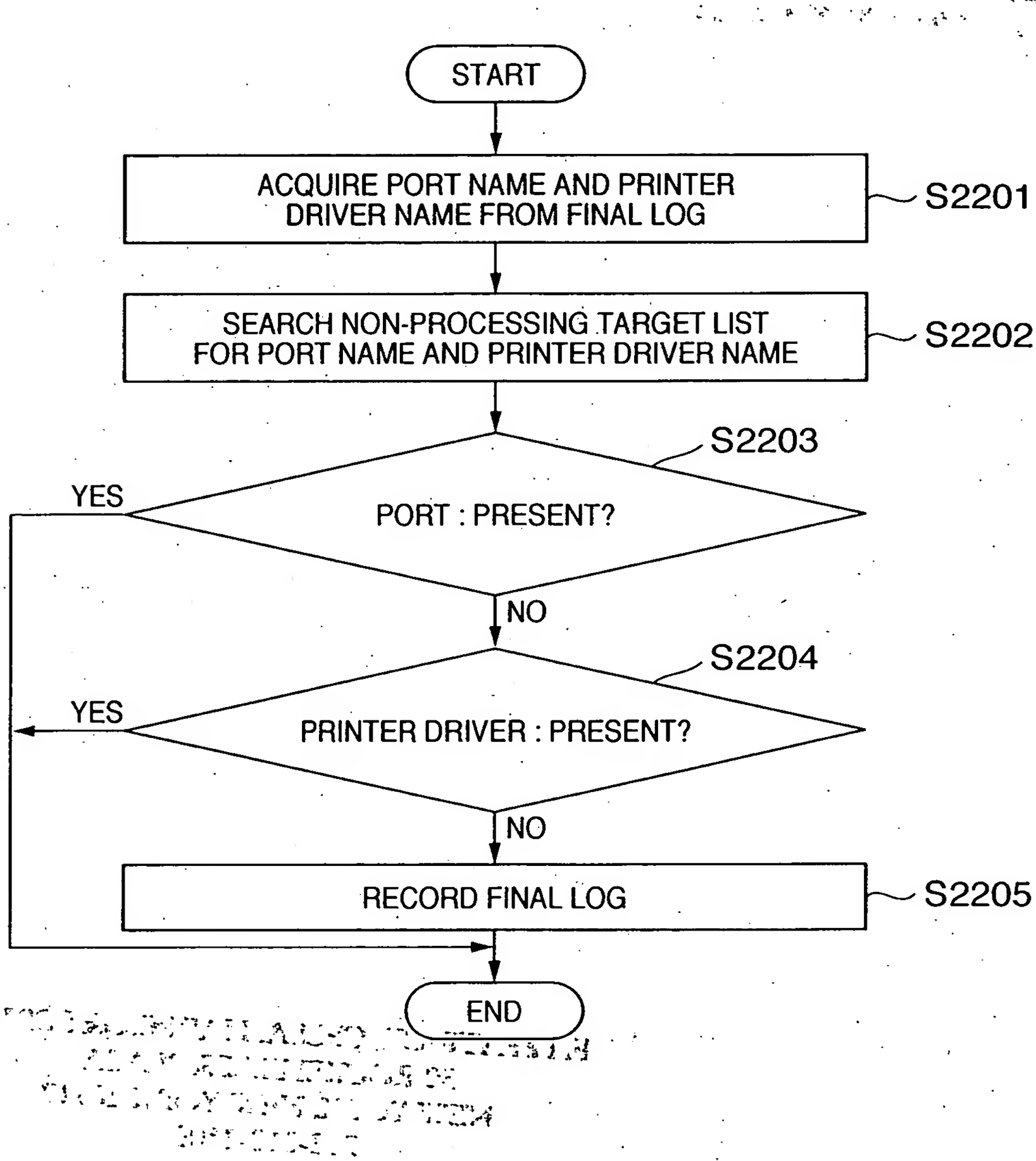

START
ACQUIRE PORT NAME AND PRINTER DRIVER NAME FROM FINAL LOG
S2201
SEARCH NON-PROCESSING TARGET LIST FOR PORT NAME AND PRINTER DRIVER NAME
S2202
S2203
PORT : PRESENT?
YES
NO
S2204
PRINTER DRIVER : PRESENT?
YES
NO
RECORD FINAL LOG
S2205
END

FIG. 19

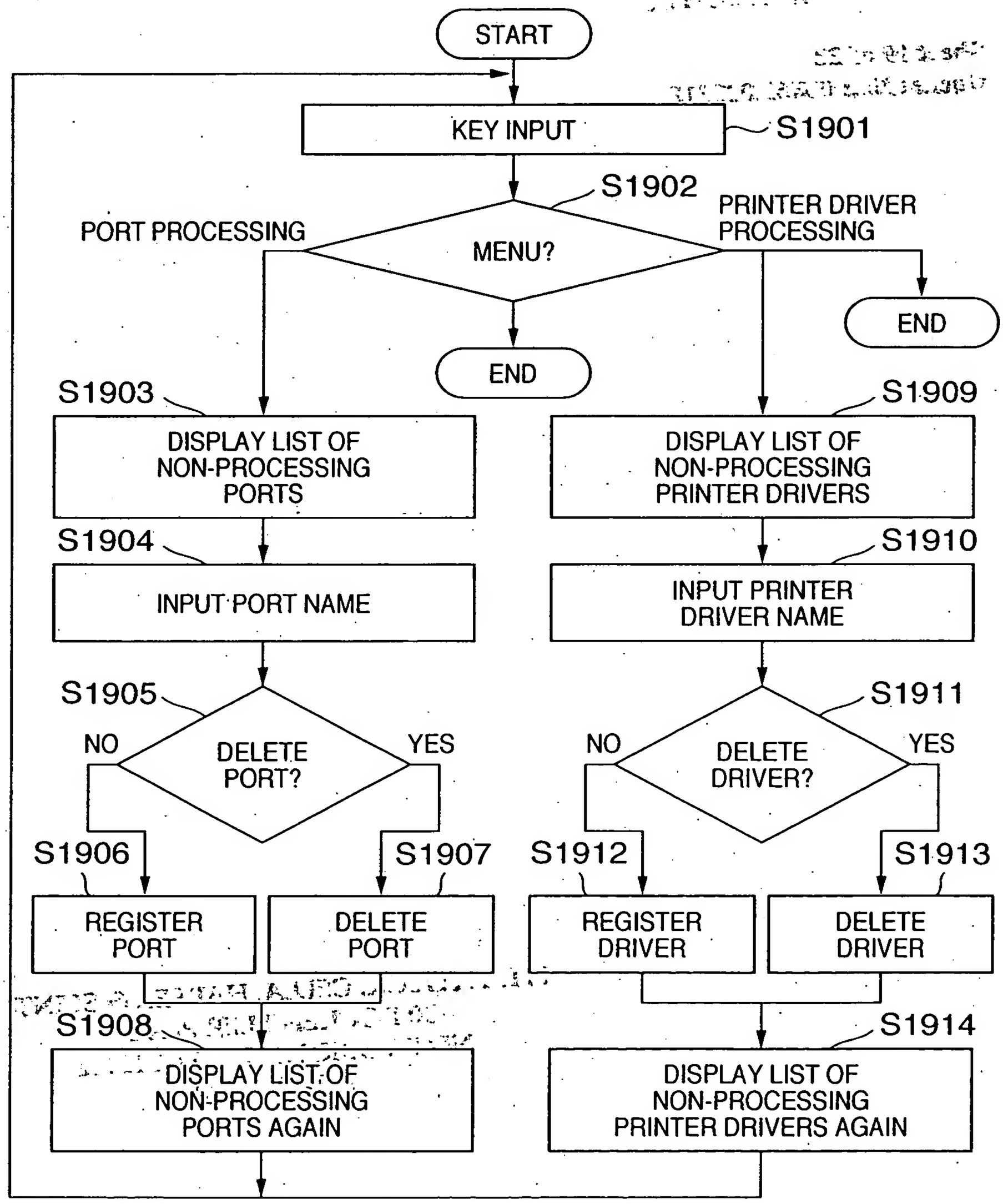

START
KEY INPUT
S1901
S1902
MENU?
PORT PROCESSING
PRINTER DRIVER PROCESSING
END
END
S1903
DISPLAY LIST OF NON-PROCESSING PORTS
S1904
INPUT PORT NAME
S1905
DELETE PORT?
NO
YES
S1906
S1907
REGISTER PORT
DELETE PORT
S1908
DISPLAY LIST OF NON-PROCESSING PORTS AGAIN
S1909
DISPLAY LIST OF NON-PROCESSING PRINTER DRIVERS
S1910
INPUT PRINTER DRIVER NAME
S1911
DELETE DRIVER?
NO
YES
S1912
S1913
REGISTER DRIVER
DELETE DRIVER
S1914
DISPLAY LIST OF NON-PROCESSING PRINTER DRIVERS AGAIN

FIG. 20

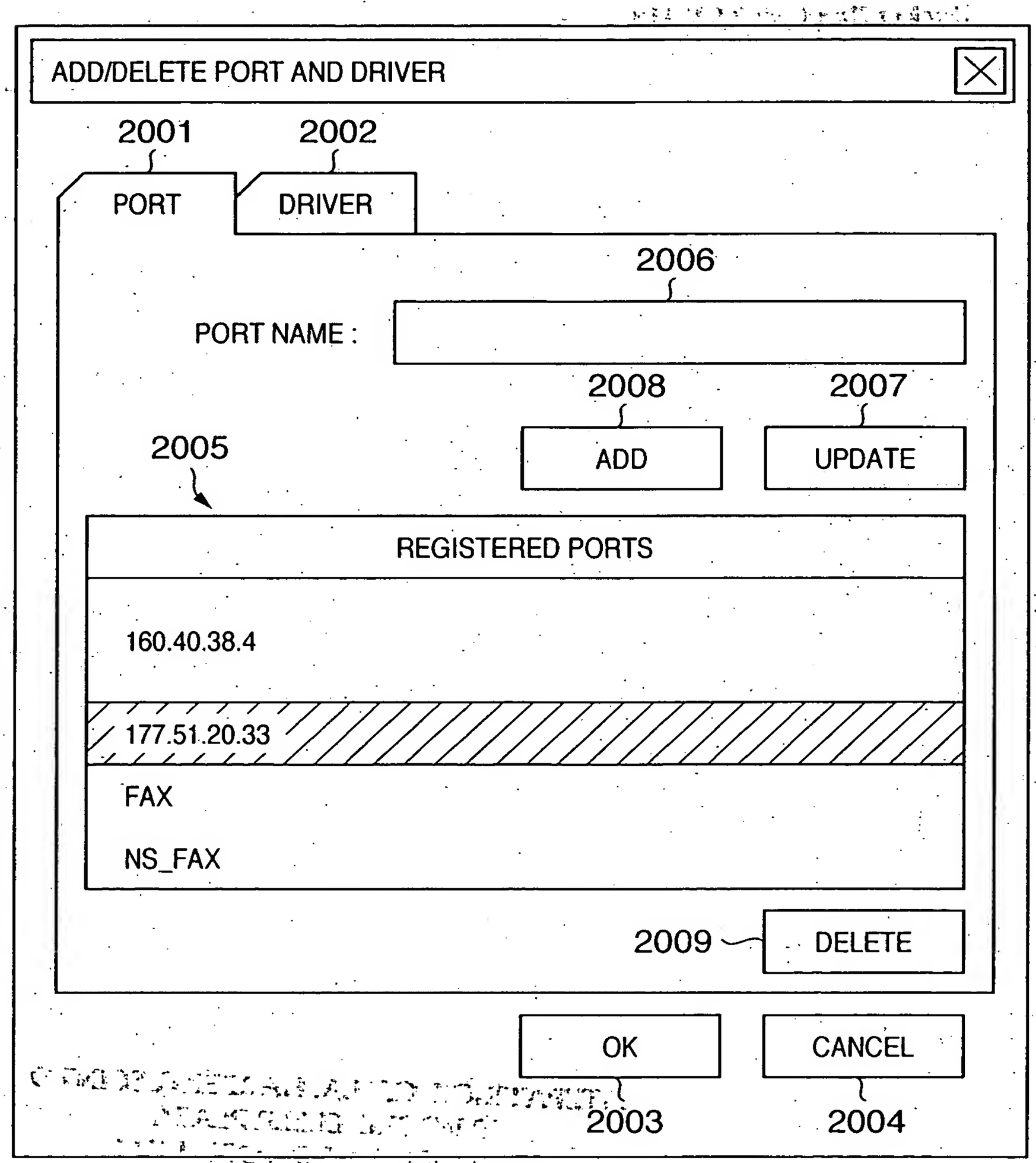
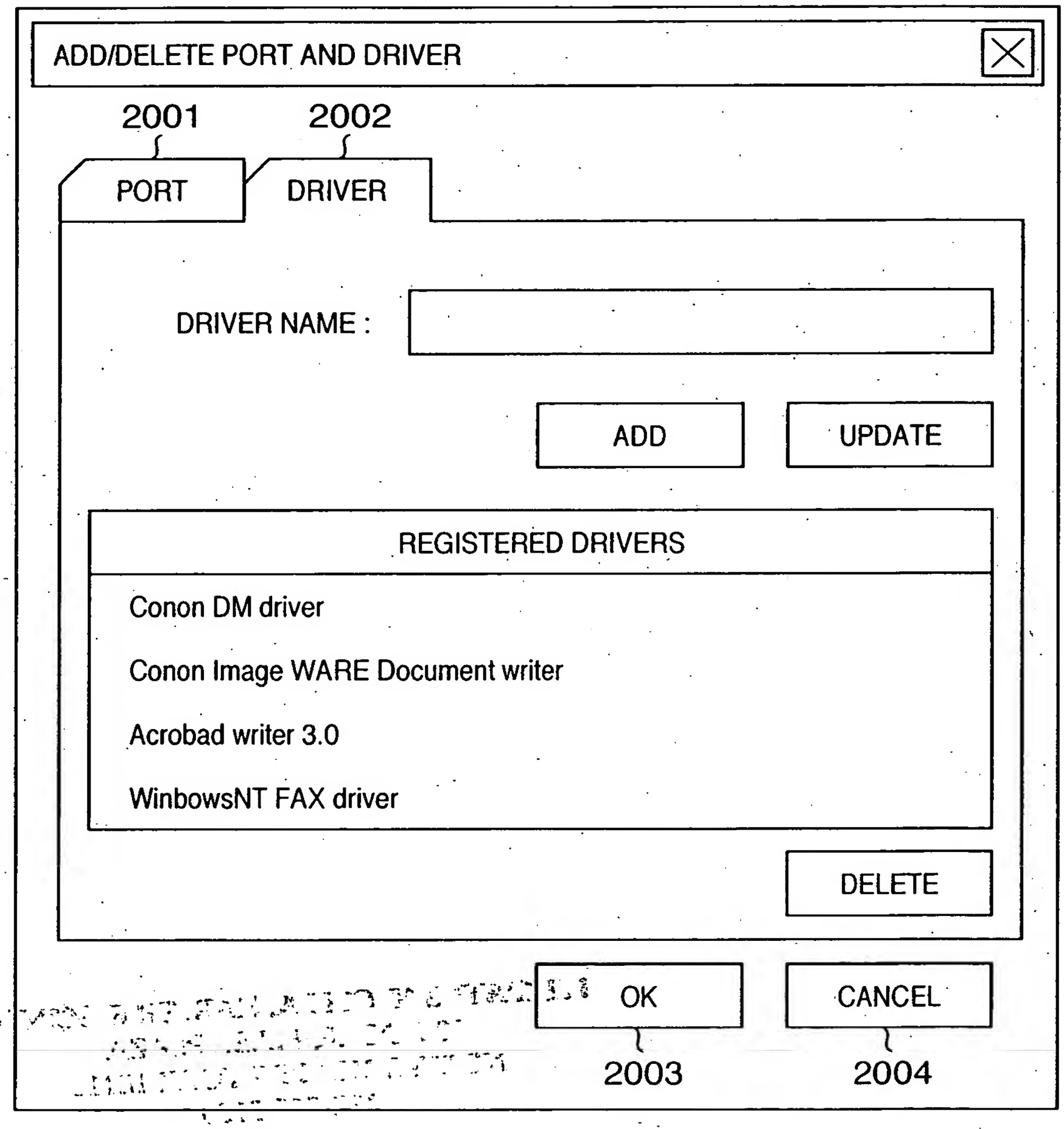

ADD/DELETE PORT AND DRIVER
2001
2002
PORT
DRIVER
2006
PORT NAME :
2008
2007
ADD
UPDATE
2005
REGISTERED PORTS
160.40.38.4
177.51.20.33
FAX
NS_FAX
2009
DELETE
OK
CANCEL
2003
2004

FIG. 21


ADD/DELETE PORT AND DRIVER
2001
2002
PORT
DRIVER
DRIVER NAME :
ADD
UPDATE
REGISTERED DRIVERS
Conon DM driver
Conon Image WARE Document writer
Acrobad writer 3.0
WinbowsNT FAX driver
DELETE
OK
CANCEL
2003
2004